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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,592	05/21/2002	Shu Nakajima	LAM2P322	2125

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EXAMINER

HARRIS, ANTON B

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/030,592

Applicant(s)

NAKAJIMA ET AL

Examiner

Anton B. Harris

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required to the drawing(s) is required to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's arguments, see pages 7-20, filed 06 December 2004, with respect to the rejection(s) of claim(s) 1-8 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Mountsier et al. (5,810,933) and Molslehi (5,400,209).

Examiner agrees with the Applicant's argument that element 26 in Logan refers to a top portion and not a base portion.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mountsier et al.

Regarding claim 1, Mountsier et al. (abstract) discloses an electrostatic chuck, comprising:

a metal base plate 56:

a ceramic disc 52 having a predetermined thickness adhesively bonded (col. 4, lines 1-9) to the metal base plate 56:

a planar electrode (col. 4, lines 30-32) positioned in the middle of the ceramic disc 52 relative to a thickness direction of the ceramic disc 52; and

a cooling gas channel 68 is formed on a top surface of the ceramic disc 52 over the electrode (col. 4, lines 30-32) and within an outer peripheral edge of the electrode (col. 4, lines 30-32).

Regarding claim 2, Mountsier et al. (abstract) discloses that planar electrode (col. 4, lines 30-32) extends beyond the cooling gas channel 68. See figure 5.

Regarding claim 7, Mountsier et al. (abstract) discloses a method comprising the steps of preparing a first disc-shaped ceramic material compact (figure 5) having a half of a thickness of a completed ceramic layer 52; forming an electrode (col. 4, lines 30-32) on a surface of the first ceramic material compact (figure 5); preparing a second disc-shaped ceramic material compact (figure 5) having a half of a thickness of the completed ceramic layer 52 and having a cooling gas channel 68 on its surface in a location overlying the electrode (col. 4, lines 30-32);

placing said second ceramic material compact (figure 5) on the first ceramic material compact (figure 5) so as to form a laminate;

firing the entire laminate to form the completed layer 52; and

bonding the completed ceramic layer 52 to a metal base plate 56 by means of an adhesive layer 54 (col. 4, lines 1-9).

Regarding claim 8, Mountsier et al. (abstract) discloses a method wherein the step includes that an adhesive layer 54 is flexible.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mountsier et al. in view of Molslehi.

Regarding claim 3, Mountsier et al. (abstract) discloses that cooling gas channel 68 comprises a ring shape along an outer peripheral edge of the ceramic disc 52, the chuck further comprising gas feed orifices 110 located in a plurality of positions at a bottom portion of the gas cooling channel 68 and gas feed orifices 110 located in a plurality of positions on a circumference on a surface of the ceramic disc 52 in the center side of the chuck, but lacks that the cooling gas channel comprises a ring shape.

Regarding claim 3, Molslehi (figure 4a) teaches that the cooling gas channel comprises a ring shape. See figure 4a.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Mountsier et al. by providing that the cooling gas channel comprises a ring shape in order to provide radial uniformity in view of the teachings of Molslehi.

Regarding claim 4, Mountsier et al. (abstract) discloses that planar electrode (col. 4, lines 30-32) includes a first electrode (col. 4, lines 30-32) and a second electrode (col. 4, lines 30-32), the first electrode (col. 4, lines 30-32) including:

- a disc portion (figure 5) arranged in the center of the ceramic layer 52; and

- a first extending portion (figure 5) extending from a part of the disc portion (figure 5) toward the outer peripheral edge (figure 5) of the ceramic layer 56; the second electrode (col. 4, lines 30-32) including:

- a second extending portion (figure 5) arranged opposite to the first extending portion (figure 5) relative to the disc portion (figure 5) of the first electrode (col. 4, lines 30-32), but lacks a circular ring portion connected to an outer edge of the second extending portion so as to form the outer peripheral edge of the second electrode.

Molslehi (figure 4a) teaches a circular ring portion (figure 5) connected to an outer edge of the second extending portion (figure 5) so as to form the outer peripheral edge of the second electrode (figure 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Mountsier et al. by providing a circular ring portion connected to an outer edge of the second extending portion so as to form the outer peripheral

edge of the second electrode in order to provide radial uniformity in view of the teachings of Molslehi.

Regarding claim 5, the teachings of Molslehi (figure 4a) further include that a first electrode 101 further includes a plurality of first C-shaped ring portions (figure 4a) at predetermined intervals so as to have different diameters, the first C shaped ring portions (figure 4a) extending in C shapes from both sides of the first extending portion (figure 4a) around the disc portion (figure 4a).

Regarding claim 6, the teachings of Molslehi (figure 4a) further include that a second electrode 102 further includes a plurality of second C-shaped ring portions (figure 4a) at predetermined intervals so as to have different diameters, the second C shaped ring portions (figure 4a) extending in C shapes from both sides of the second extending portion (figure 4a) around the disc portion (figure 4a) and being engaged with the plurality of first C-shaped ring portions of the first electrode 101.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anton B Harris whose telephone number is (571) 272-1976. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dean Reichard, can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

abh

2/22/05

  
DEAN A. REICHARD  
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